

Title (en)

VOICE OPTIMIZATION IN NOISY ENVIRONMENTS

Title (de)

SPRACHOPTIMIERUNG IN UMGEBUNGEN MIT HOHEM GERÄUSCHPEGEL

Title (fr)

OPTIMISATION DE LA VOIX DANS DES ENVIRONNEMENTS BRUYANTS

Publication

**EP 4115413 A1 20230111 (EN)**

Application

**EP 22725576 A 20220511**

Priority

- SE 2150611 A 20210512
- SE 2022050461 W 20220511

Abstract (en)

[origin: WO2022240346A1] The present invention relates to a method, of increasing speech intelligibility of an audio stream (20) comprising speech audio. The method is performed in real-time by an audio device and comprises detecting an ambient noise (40) and estimating an internal noise based on the ambient noise (40). A voice filter (50) is determined based on the estimated internal noise and the audio stream (20) and the voice filter (50) is applied to the audio stream (20) to provide a target audio stream (20'). The target audio stream (20') is outputted to one or more transducers (35) in order to generate an internal sound (37) of the audio device. The internal sound (37) of the audio device (30) is detected and wherein the determining of the voice filter (50) is further based on the detected internal sound (37). An audio device, an audio system and a computer program product are also presented.

IPC 8 full level

**G10L 21/0208** (2013.01)

CPC (source: EP KR SE)

**G06N 3/044** (2023.01 - KR); **G10K 11/1752** (2020.05 - KR SE); **G10L 21/0208** (2013.01 - EP KR SE); **G10L 21/0364** (2013.01 - KR SE); **H04R 1/1083** (2013.01 - EP KR SE); **H04R 25/507** (2013.01 - KR); **H04R 25/554** (2013.01 - KR); **G10K 2210/1081** (2013.01 - KR SE); **G10L 2021/02165** (2013.01 - KR SE); **H04R 25/507** (2013.01 - EP); **H04R 25/554** (2013.01 - EP); **H04R 2225/43** (2013.01 - EP KR); **H04R 2420/07** (2013.01 - EP KR); **H04R 2430/01** (2013.01 - EP KR); **H04R 2460/01** (2013.01 - EP KR)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

**WO 2022240346 A1 20221117**; CN 117321681 A 20231229; EP 4115413 A1 20230111; JP 2024517721 A 20240423;  
KR 20240007168 A 20240116; SE 2150611 A1 20221113; SE 545513 C2 20231003

DOCDB simple family (application)

**SE 2022050461 W 20220511**; CN 202280034750 A 20220511; EP 22725576 A 20220511; JP 2023566012 A 20220511;  
KR 20237039399 A 20220511; SE 2150611 A 20210512